What is claimed is:

1. A linear actuator, comprising:

a housing;

a stop displaceable with respect to the housing;

at least one wire formed of a shape-memory alloy, said wire attached at a first end to the stop and at a second end to the housing for applying a pulling force to the stop when heated to a predetermined temperature to cause the stop to slide in a first direction;

a spring applying a biasing force to the stop in a second direction counter to the first direction; and

a wire heater.

2. The actuator of claim 1, wherein the housing further includes at least one curved wire guide.

3. The actuator of claim 1, further including at least one means for reducing frictional contact between the wire and the housing.

4. The actuator of claim 3, wherein the means for reducing frictional contact is at least one bearing.

5. The actuator of claim 4, wherein the bearing defines a channel therethrough for slidingly receiving the wire.

6. The actuator of claim 5, wherein the bearing is a jewel bearing fabricated from any of the group consisting of ruby, sapphire, spinel, cubic zirconia, diamond, and any combination thereof.

7. The actuator of claim 3, wherein the means for reducing frictional contact is a cylindrical shaft extending from the stop into the housing interior channel, the shaft defining a hollow interior adapted to receive the wire therethrough.

8. The actuator of claim 7, wherein the shaft is fabricated from any of the group of materials consisting of stainless steel, aluminum, magnesium, titanium, carbon steel, copper, nickel, carbon-fiber composite, and any combination thereof.

9. The actuator of claim 1, wherein the wire is fabricated from any of the group of shape memory alloys consisting of nickel-titanium, silver-cadmium, gold-cadmium, copper-aluminum-nickel, copper-tin, copper-zinc, copper-zinc-tin, copper-zinc-aluminum, copper-zinc-silica, indium-titanium, nickel-aluminum, iron-platinum, manganese-copper, iron-manganese-silica, and any combination thereof.

10. The actuator of claim 1, wherein the means for heating the wire is an electrical source for applying an electrical current to the wire.

11. The actuator of claim 1, wherein the housing includes cooperating slots and protrusions on an exterior surface thereof for connecting at least two actuators in parallel or in series.

12. An actuating device comprising:

at least two linear actuators configured in a parallel orientation, wherein each actuator includes a housing having cooperating slots and protrusions on an exterior surface thereof for connecting the actuators, a stop displaceable with respect to the housing, at least one wire formed of a shape-memory alloy attached at a first end to the stop and at a second end to the housing for applying a pulling force to the stop when heated to a predetermined temperature to cause the stop to slide in a first direction, and a spring applying a biasing force to the stop in a second direction counter to the first direction;

a plate adapted for concurrently attaching to each actuator stop; and

an electrical source for applying an electrical current to the wire of each actuator to cause the wire to heat to a predetermined temperature.

13. The actuating device of claim 12, wherein each actuator housing further includes at least one curved wire guide.

14. The actuating device of claim 12, wherein each actuator further includes at least one means for reducing frictional contact between the wire and the housing.

15. The actuating device of claim 14, wherein the means for reducing frictional contact is at least one bearing.

16. The actuating device of claim 15, wherein the bearing defines a channel therethrough for slidingly receiving the wire.

17. The actuating device of claim 16, wherein the bearing is a jewel bearing fabricated from any of the group consisting of ruby, sapphire, spinel, cubic zirconia, diamond, and any combination thereof.

18. The actuating device of claim 14, wherein the means for reducing frictional contact is a cylindrical shaft extending from the stop into the housing interior channel, the shaft defining a hollow interior adapted to receive the wire therethrough.

19. The actuating device of claim 18, wherein the shaft is fabricated from any of the group of materials consisting of stainless steel, aluminum, magnesium, titanium, carbon steel, copper, nickel, carbon-fiber composite, and any combination thereof.

20. The actuating device of claim 12, wherein the wire is fabricated from any of the group of shape memory alloys consisting of nickel-titanium, silver-cadmium, gold-cadmium, copper-aluminum-nickel, copper-tin, copper-zinc, copper-zinc-tin, copper-zinc-aluminum, copper-zinc-silica, indium-titanium, nickel-aluminum, iron-platinum, manganese-copper, iron-manganese-silica, and any combination thereof.

21. An actuating device comprising:

at least two linear actuators configured in a serial orientation, wherein each actuator includes a housing defining an interior channel, a stop displaceable with respect to the housing, at least one wire formed of a shape-memory alloy attached at a first end to the stop and at a second end to the housing for applying a pulling force to the stop when heated to a predetermined temperature to cause the stop to slide in a first direction into the housing interior channel, and a spring applying a biasing force to the stop in a second direction counter to the first direction;

an electrical source for applying an electrical current to heat the wire of each actuator to a predetermined temperature; and

a controller for causing the electrical source to apply current to predetermined individual applicator wires at predetermined timed intervals.

22. The actuating device of claim 21, wherein each actuator housing further includes at least one curved wire guide.

23. The actuating device of claim 21, wherein each actuator further includes at least one means for reducing frictional contact between the wire and the housing.

24. The actuating device of claim 23, wherein the means for reducing frictional contact is at least one bearing.

25. The actuating device of claim 24, wherein the bearing defines a channel therethrough for slidingly receiving the wire.

26. The actuating device of claim 25, wherein the bearing is a jewel bearing fabricated from any of the group consisting of ruby, sapphire, spinel, cubic zirconia, diamond, and any combination thereof.

27. The actuating device of claim 23, wherein the means for reducing frictional contact is a cylindrical shaft extending from the stop into the housing interior channel, the shaft defining a hollow interior adapted to receive the wire therethrough.

28. The actuating device of claim 27, wherein the shaft is fabricated from any of the group of materials consisting of stainless steel, aluminum, magnesium, titanium, carbon steel, copper, nickel, carbon-fiber composite, and any combination thereof.

29. The actuating device of claim 21, wherein the wire is fabricated from any of the group of shape memory alloys consisting of nickel-titanium, silver-cadmium, gold-cadmium, copper-aluminum-nickel, copper-tin, copper-zinc, copper-zinc-tin, copper-zinc-aluminum, copper-zinc-silica, indium-titanium, nickel-aluminum, iron-platinum, manganese-copper, iron-manganese-silica, and any combination thereof.

30. The actuating device of claim 21, further including a rotary dispenser, the dispenser comprising:

a bottom for receiving at least one vial for holding a substance to be dispensed;

a dispensing nozzle;

a central hub having a plurality of slots for receiving the actuator stops, thereby preventing rotation of the dispenser;

means for rotating the dispenser when the stops are withdrawn from the central hub slots; and

a top.

31. The actuating device of claim 30, wherein the means for rotating the dispenser is a coiled spring.